

GLOSSARY

AA - assembly area

AAR - after action report

abn - airborne

ACR - armored cavalry regiment

ACRV - artillery command and reconnaissance vehicle

aerosol - fine particles of solids or liquid suspended in air

AD - air defense

AG - advanced guard

AICV - armored infantry combat vehicle

AMC - Army Materiel Command

APC - armored personnel carrier

arty - artillery

ASG - area support group

ASP - ammunition supply point

ATGM - antitank guided missile

attenuate - reduce the effectiveness amount or force of

bispectral obscurant - an obscurant that blocks or attenuates two portions of the electromagnetic spectrum (such as visual and infrared)

blanket - See smoke blanket

BMNT - beginning morning nautical twilight

Bn - battalion

BSA - brigade support area

build-up phase - the second stage of smoke cloud production; occurs when the individual smoke streamers start to merge

CAS - close air support

CEV - combat engineer vehicle

CFL - coordinated fire line

CFV - cavalry fighting vehicle

CLOS - command line of sight

CMO - civil military operations

COSCOM - corps support command

CP - command post

CRP - combat reconnaissance patrol

CRSTA - counterreconnaissance surveillance and target acquisition

CSS - combat service support

curtain - See smoke curtain

DAG - division artillery group

decon - decontamination

det - detachment

DEW - directed-energy weapon (such as high-energy microwaves lasers)

DISCOM - division support command

DPICM - dual-purpose improved conventional munition

DS - direct support

DSA - division support area

EA - engagement area

EENT - ending evening nautical twilight

eff - effective

electro-optical system - a device that detects targets by converting the electromagnetic radiation (visible infrared microwave) given off by the target into electric current; this current is amplified then used to power a viewer or targeting system; this device can detect targets not visible to the naked eye

EMP - electromagnetic pulse

EO - electro-optical

EW - early warning

FA - field artillery

far infrared - electromagnetic energy with wavelengths of 8 to 14 micrometers

FASCAM - family of scatterable mines

FDC - fire direction center

FEBA - forward edge of the battle area

FFL - free fire line

flank wind - a wind that blows directly across a line between the smoke objective and the smoke source

FLIR - forward looking infrared

FLOT - forward line of own troops

fog oil - petroleum compounds of selected molecular weight and composition to facilitate formation of smoke by atomization or combustion; the resultant smoke is white

FS Cell - fire support cell

FSCoord - fire support coordinator

FSE - forward security element

FSO - fire support officer

g - gram

gen - generator

GS - general support

GSR - ground surveillance radar

G/VLLD - ground/vehicle laser locator designator

haze - a light concentration of obscuration that restricts accurate enemy observation from the air and ground. This prevents accurate enemy target acquisition but does not disrupt friendly operations that require limited visibility such as river crossings. A smoke haze allows limited visibility that reduces the recognition of personnel and equipment from 50 to 150 meters.

HC - a pyrotechnic smoke-producing composition of hexachloroethane zinc oxide and aluminum powder employed in certain smoke munitions; has a sharp acid odor; toxic if released in sufficient quantities in enclosed places; the smoke is cool burning when contrasted to white phosphorus

HE - high explosive

HMMWV - high-mobility multipurpose wheeled vehicle

head wind - wind blowing away from the smoke objective and directly toward the smoke source

HUMINT - human intelligence

ICM - improved conventional munition

IFV - infantry fighting vehicle

IMINT - imagery intelligence

individual streamer - the initial phase of a smoke cloud before the streamers from the point sources merge

inversion - an increase of air temperature with increase in height (the ground being colder than the surrounding air); this condition usually occurs on clear or partially clear nights and early mornings until about one hour after sunrise but sometimes persists longer. When stable conditions exist there are no convection currents and with wind speeds below 5 knots little mechanical turbulence. Therefore stable conditions are the most favorable for ground-released smoke

IPB - intelligence preparation of the battlefield

IPE - individual protective equipment

ir - infrared

ITV - improved TOW vehicle

k - knot(s)

km - kilometer(s)

kmph - kilometer(s) per hour

lapse - a marked decrease of air temperature with increasing altitude (the ground being warmer than the surrounding air). During unstable or lapse conditions strong convection currents are found. For smoke operations the state is defined as unstable. This condition is normally the most unfavorable for the release of smoke.

LC - line of contact

LD - line of departure

LIC - low-intensity conflict

LOGPAC - logistics package

LRP - logistics release point

LTOE - living table of organization and equipment

m - meter(s)

marking smoke - smoke employed to relay prearranged communications on the battlefield. Frequently used to identify targets evacuation points and friendly unit perimeters.

MBA - main battle area

mech - mechanized

METT-T - mission enemy terrain troops and time available

mid-infrared - electromagnetic energy with wavelength in the range of 3 to 8 micrometers

min - minute(s)

mm - millimeter(s)

MOGAS - motor gasoline

MOUT - military operations on urbanized terrain

MRB - motorized rifle battalion

MRC - motorized rifle company

MSR - main supply route

MTOE - modified table of organization and equipment

multispectral obscurant - an obscurant that blocks or attenuates more than two portions of the electromagnetic spectrum (such as visual infrared and millimeter wave)

NAI - named areas of interest

NBC - nuclear biological and chemical

NBCC - nuclear biological and chemical center

NCO - noncommissioned officer

near infrared - electromagnetic energy with wavelengths of 0.7 to 3 micrometers

neutral - a meteorological condition that exists when conditions are intermediate between lapse and inversion; neutral conditions tending toward lapse favor production of smoke curtains; neutral conditions tending toward inversion favor smoke blankets or hazes

night-vision device - a viewer enabling an operator to see in the dark; also called night-observation device

NFL - no fire line

NTC - National Training Center

OB - order of battle

obj - objective

obscurant - a chemical compound that decreases the level of energy available for the functions of seekers trackers and vision-enhancement devices

obscuring smoke - smoke placed on or near enemy positions to minimize enemy observation both within and beyond the position area

oil smoke - see fog oil

OP - observation point

OPCON - operational control

OPLAN - operation plan

OPORD - operation order

OPSEC - operations security

PD - proximity detonator

phases of smoke - see individual streamer build-up phase uniform phase and terminal phase

PHOTINT - photographic intelligence

PIR - priority intelligence requirement

PL - phase line

plt - platoon

POL - petroleum oils and lubricants

protecting smoke - smoke produced to defeat or degrade target acquisition or guidance systems or the effects of directed-energy weapons

PWP - plasticized white phosphorus

quartering wind - a wind that blows between tail and flank winds toward the smoke objective

RAG - Regimental Artillery Group

rd - round

recon - reconnaissance

red phosphorus - a form of phosphorus not spontaneously flammable

RFL - restrictive fire line

RISTA - reconnaissance, intelligence, surveillance and target acquisition

RP - red phosphorus

RPV - remotely piloted vehicle

S1 - adjutant

S2 - intelligence officer

S3 - operations officer

S4 - logistics officer

S5 - civil-military affairs officer

screening smoke - smoke employed in areas of friendly operation or in areas between friendly and enemy forces to degrade enemy ground and aerial observation; used to conceal ground maneuver breaching and recovery operations as well as key assembly areas supply routes and logistic facilities

selected area - as used in this manual an area to be concealed by smoke

SG - smoke generator

SGF2 - smoke generator fog number 2; also called fog oil

signature - the visible or audible effects produced when firing a weapon or operating a piece of equipment such as smoke, noise, flame/heat or debris; also an electronic emission subject to detection and traceable to the equipment producing it

silhouette - the outline or general shape of something contrasted against a lighter background

SLAR - side-looking airborne radar

smoke - a particulate of solid or liquid part of low-vapor pressure that settles out slowly under gravity; in general smoke particles range downward from about 5 micrometers in diameter to less than 0.1 micrometer in diameter; also means the suspension of small liquid or solid particles in air; the filling for smoke munitions such as bombs shells and grenades; to produce signaling or screening smoke with any munition; generally any artificial aerosol

smoke blanket - a dense concentration of smoke established over and around friendly areas to protect them from visual observation from the air and visual precision bombing attack or established over an enemy area to protect attacking aircraft from air defense fire. Blankets can also be used at night to prevent enemy-observed air attack by flare light. A smoke blanket reduces visual recognition of personnel and equipment to less than 50 meters.

smoke control officer - the officer designated by the maneuver unit commander to coordinate and control the smoke operation

smoke curtain - a vertical development of smoke that reduces the enemy's ability to clearly see what is occurring on the other side of the cloud; visual recognition depends on the curtain width and smoke density

smoke generator - a mechanical device that vaporizes fog oil and releases it to condense in the air as a white smoke

smoke haze - a light concentration of smoke placed over friendly installations to restrict accurate enemy observation and fire but not dense enough to hamper friendly operations; density of haze is equivalent to that of light fog

smoke munition - a device that is either discharged from a weapon or thrown and that makes smoke

smoke point source - the point from which a smoke munition or smoke device generates an individual streamer of smoke

smoke position - location of a smoke pot or mechanical smoke generator

smoke pot - an expendable bucket- or pot-like ammunition that produces a dense smoke by burning a smoke mixture

smoke projectile - any projectile containing a smoke-producing agent that is released on impact or upon bursting; also called smoke shell

smoke shell - see smoke projectile

smoke target analysis - the process of selecting the optimal smoke delivery system to attack specific EO systems

smoke target development - the process of situation development and intelligence preparations of the battlefield

SOP - standing operating procedure

sophisticated weapons - precision-guided munitions equipped with infrared electro-optical or laser seekers/trackers with or without command links; munitions with high accuracy and hence high probability of kill against a target

special smoke - an obscurant that blocks or attenuates a specific portion of the electromagnetic spectrum (such as visual infrared and millimeter wave)

spt - support

sqd - squad

stable - see inversion

streamer - the smoke cloud formed by a single smoke source

synchronization - the coordination of activities in time space and purpose to achieve maximum combat power at the decisive point

TAA - tactical assembly area

TAACOM - theater Army area command

TAI - target areas of interest

tail wind - a wind that blows toward the smoke objective from behind the smoke source

temperature gradient - comparison of the air temperature at 5 meters above the ground with the air temperature at 4 meters above ground; see also inversion neutral and lapse

terminal phase - that stage of a smoke cloud when the cloud has thinned out and the cover is no longer effective; see also smoke blanket

thermal infrared - electromagnetic energy with a wavelength range of 3 to 20 micrometers

TOC - tactical operations center

TOE - table of organization and equipment

TOW - tube-launched optically tracked wire-guided

TPU - tank and pump unit

TVA - target value analysis

uniform phase - phase of smoke during which the uniformly obscuring cloud exists, the streamers have joined and breakup of the cloud has not begun

unstable - see lapse

UTM - universal transverse mercator

VEESS - vehicle engine exhaust smoke system

visibility - the distance at which it is possible to distinguish a prominent object against the background with the unaided eye

visibility criteria - the estimate of smoke effectiveness in qualitative terms (e.g., a haze means that you can see more than 50 but less than 150 meters into the smoke with the unaided eye).

visible spectrum - the portion of the electromagnetic spectrum lying between 0.38 and 0.78 micrometers

white phosphorus - a spontaneously flammable solid that burns to form solid smoke particles of phosphorus pentoxide; the phosphorus pentoxide then reacts with moisture in the atmosphere to form droplets of phosphoric acid; the dilution depends on the relative humidity

WP - white phosphorus